GIRDER SCHEDULE

SPAN	GIRDER	GIRDER HEIGHT H	"A" DIMENSION AT ℄ BEARINGS	L	L1	LT	θ1	θ2	PLAN LENGTH (ALONG GIRDER GRADE)	MIN. CONC. COMP. STRENGTH @ 28-DAYS F'C (KSI)	MIN. CONC. COMP. STRENGTH @ RELEASE F'CI (KSI)	NUMBER OF STRAIGHT STRANDS	NUMBER OF TEMP. STRANDS	E	STRAIGHT STR. TO EXTEND END 1	STRAIGHT STR. TO EXTEND END 2	STRAIGHT STRANDS TO DEBOND GROUP 1 STRANDS TO DEBOND	GROUP 1 SLEEVED LENGTH AT ENDS TO PREVENT BOND	GROUP 2 STRANDS TO DEBOND	GROUP 2 SLEEVED LENGTH AT ENDS TO PREVENT BOND	GROUP 3 STRANDS TO DEBOND	GROUP 3 SLEEVED LENGTH AT ENDS TO PREVENT BOND	DECK SCREED CAMBER C	D LOWER BOUND @ 40 DAYS	D UPPER BOUND @ 120 DAYS	REINFORCEMENT DETAILS V1	V2	V3	V4	V5	V6
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	? TO ?	? TO ?	? TO ?	-	? TO ?	-	? TO ?	-	-	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

GIRDER NOTES

1. PLAN LENGTH SHALL BE INCREASED AS NECESSARY TO COMPENSATE FOR SHORTENING DUE TO PRESTRESS AND SHRINKAGE.
2. ALL PRETENSIONED AND TEMPORARY STRANDS SHALL BE 0.6"ø AASHTO M203 GRADE 270 LOW RELAXATION STRANDS, JACKED TO 202.5 KSI.
3. CUT ALL STRANDS FLUSH WITH THE GIRDER ENDS AND PAINT WITH AN APPROVED EPOXY RESIN, EXCEPT FOR EXTENDED STRANDS AS SHOWN.
4. THE TOP SURFACE OF THE GIRDER SHALL BE ROUGHENED IN ACCORDANCE WITH SECTION 6-02.3(25)H OF THE STANDARD SPECIFICATIONS.
5. LIFTING EMBEDMENTS SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 6-02.3(25)L OF THE STANDARD SPECIFICATIONS.
6. ALL REINFORCING STEEL SPLICES SHALL BE 2'-0" MINIMUM, UNLESS SHOWN OTHERWISE.
7. STRUCTURAL STEEL SHAPES AND ASSEMBLIES SHALL BE ASTM A36. THEY SHALL BE PAINTED WITH A PRIMER COAT IN ACCORDANCE WITH STD. SPEC. 6-07.3(9). WELD TIES SHALL BE PAINTED WITH A FIELD PRIMER COAT OF AN ORGANIC ZINC PAINT AFTER FIELD WELDING.
8. NO TRAFFIC SHALL BE ALLOWED UNTIL THE BRIDGE DECK CONCRETE HAS ATTAINED A MINIMUM STRENGTH OF 3000 PSI.
9. TEMPORARY STRANDS SHALL BE UNBONDED OVER ALL BUT THE END 10'-0" OF THE SLAB LENGTH. TEMPORARY STRANDS SHALL BE CUT AFTER ALL VOIDED SLABS ARE ERECTED, BUT BEFORE ROADWAY CONCRETE SLAB IS CAST.
10. DEFORMED WELDED WIRE REINFORCEMENT CONFORMING TO SECTION 9-07.7 WITH DEFORMED WIRE CONFORMING TO SECTION 9-07.8 MAY BE SUBSTITUTED FOR MILD STEEL REINFORCEMENT IF AASHTO LRFD BRIDGE DESIGN SPECIFICATION REQUIREMENTS (INCLUDING DEVELOPMENT AND ANCHORAGE) ARE MET. WELDED WIRE REINFORCEMENT SHALL HAVE THE SAME AREA AND SPACING AS THE MILD STEEL REINFORCEMENT THAT IT REPLACES AND THE YIELD STRENGTH SHALL BE GREATER THAN OR EQUAL TO 60 KSI. SHEAR STIRRUP LONGITUDINAL WIRES AND TACK WELDS SHALL BE EXCLUDED FROM GIRDER WEBS. LONGITUDINAL WIRES FOR ANCHORAGE OF WELDED WIRE REINFORCEMENT SHALL HAVE AN AREA OF 40% OR MORE OF THE AREA OF THE WIRE BEING ANCHORED BUT SHALL NOT BE LESS THAN D4.

NOTES TO DESIGNER:

1. SLAB GIRDER DETAIL SHEETS 1 TO 3 ARE INTENDED TO BE USED AS IS WITHOUT NEED FOR MODIFICATION FOR MOST PROJECTS. PROJECT SPECIFIC GIRDER DETAILS ARE THEN LIMITED TO THE GIRDER SCHEDULE.
2. V1 SPA. @ V2 IS INTENDED TO BE THE SPLITTING RESISTANCE ZONE DEFINED BY BDM 5.6.2.F.
3. V3 SPA. @ V4 IS INTENDED TO BE THE CONFINEMENT REINFORCEMENT ZONE DEFINED BY BDM 5.6.2.G.
4. DIMENSIONS IN THE GIRDER SCHEDULE SHALL BE SHOWN TO THE NEAREST 1/8TH INCH.
5. THESE SHEETS ASSUME STANDARD GIRDER WIDTHS. GIRDER WIDTHS MAY VARY FROM THE STANDARD WIDTH UP TO 8'-0" BUT THESE SHEETS MUST BE MODIFIED ACCORDINGLY.
6. MAXIMUM GIRDER LENGTHS ARE AS FOLLOWS:
   33.33 FT FOR H = 12"
   50.00 FT FOR H = 18"
   72.22 FT FOR H = 26"
   83.33 FT FOR H = 30"
   100.00 FT FOR H = 36"
7. PROVIDE A LONGITUDINAL #4 IN CIP ROADWAY SLAB INSIDE G9 HOOKS (TYP.)
8. DOWEL BARS AND HOLES MAY BE DELETED IF TRANSVERSE STOPS ARE PROVIDED. CHECK DOWEL BARS FOR ADEQUACY.
9. GAP BETWEEN SLAB UNITS MAY VARY AT OR NEAR CROWNS OR SUPERELEVATION ANGLE POINTS. CONSIDER A LARGER CONNECTION ROD OR PLATE IF NECESSARY.
10. PLACE DEBONDED STRANDS IN INTERIOR LOCATIONS WITHIN SECOND ROW IF POSSIBLE.
11. MAXIMUM SKEW ANGLE IS 30°.
12. THIS STANDARD IS INTENDED TO BE USED WITH A 5" MINIMUM CIP CONCRETE DECK. MODIFICATIONS ARE REQUIRED IF THIS STANDARD IS USED WITH AN HMA OVERLAY.

Last revised on : 7/8/2011

SHEET NO.

FILE NO.

SR

5.6-A8-1

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB SCHEDULE AND NOTES.MAN				
Supervisor				REGION NO.	STATE
Designed By				10	WASH.
Checked By				JOB NUMBER	
Detailed By					
Bridge Projects Engr.					
Prelim. Plan By					
Architect/Specialist	DATE	REVISION	BY	APP'D	

FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS

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Washington State Department of Transportation

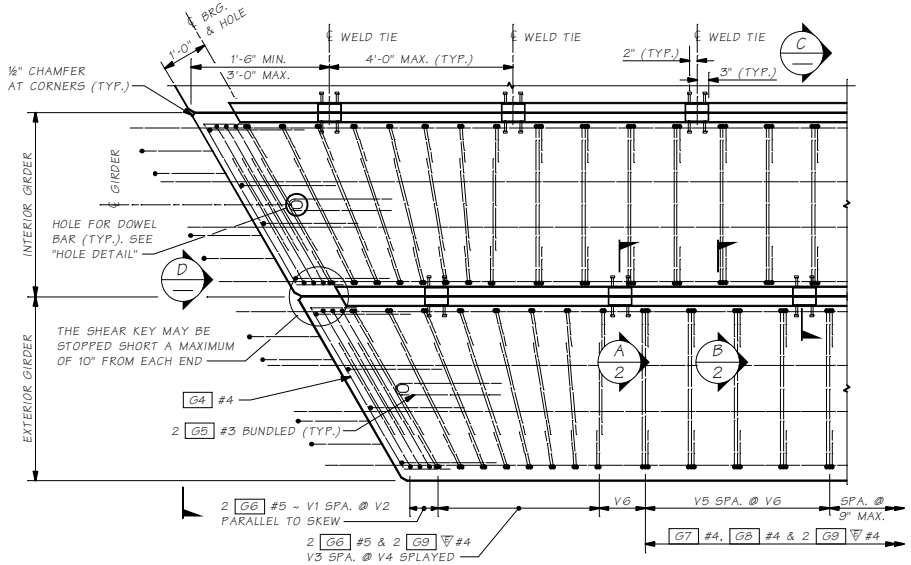
STANDARD PRESTRESSED CONCRETE GIRDERS

SLAB GIRDER GIRDER SCHEDULE

BRIDGE SHEET NO.

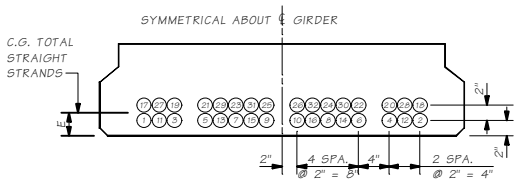
SHEET OF SHEETS

Thu Jan 26 08:31:19 2012



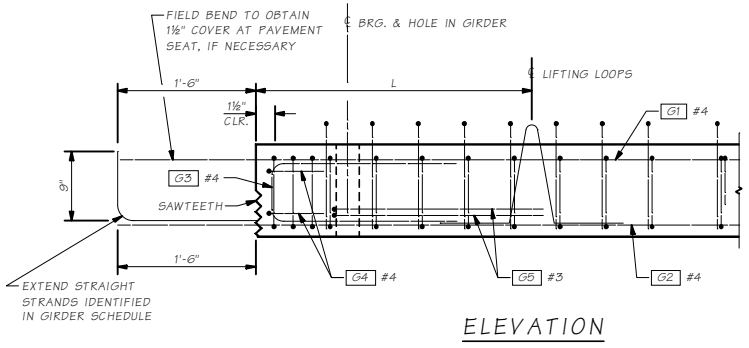
PLAN

S1 BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATION.

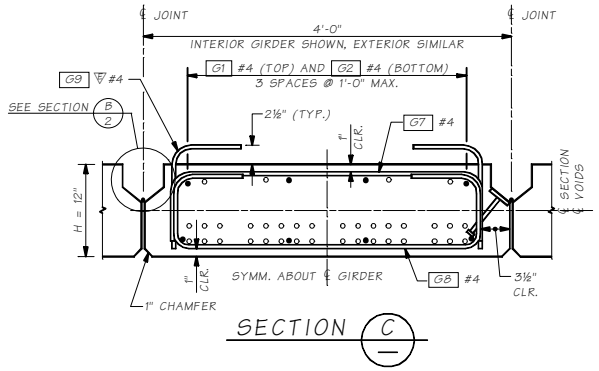


STRAND PATTERN

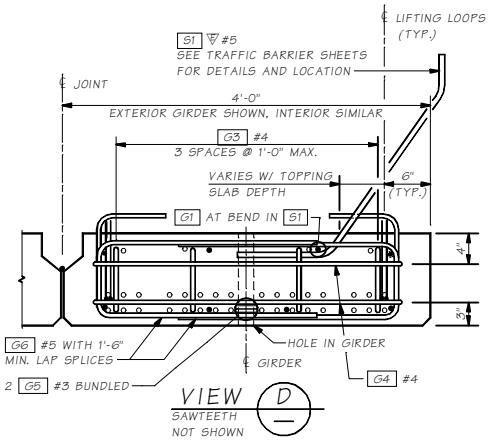
STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



ELEVATION



SECTION C



VIEW D

SAWTEETH NOT SHOWN

Last revised on : 7/8/2011

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 12 - 1 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
Checked By									
Detailed By									
Bridge Projects Engr.									
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STANDARD PRESTRESSED CONCRETE GIRDERS

12" SLAB GIRDER DETAILS 1 OF 2

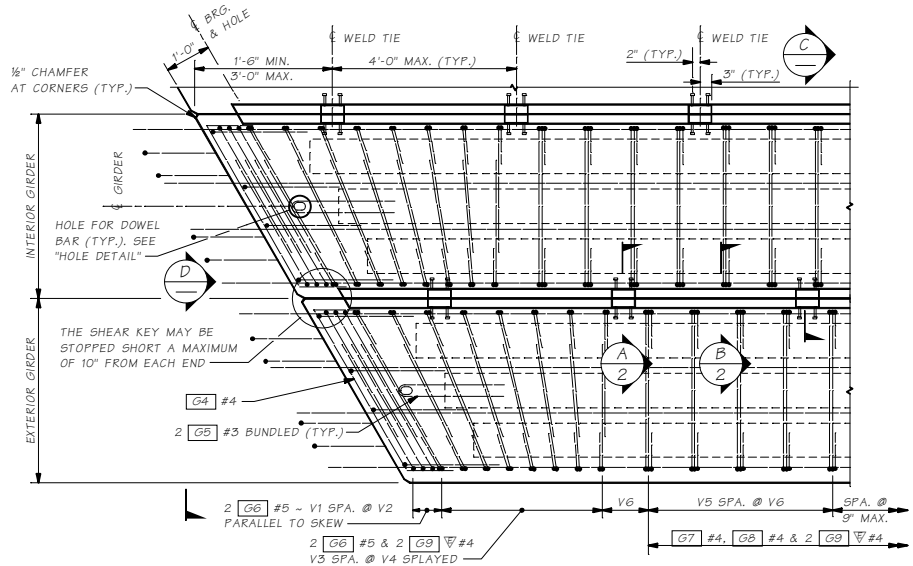
BRIDGE SHEET NO.

SHEET OF SHEETS

FILE NO. 5.6-A8-2

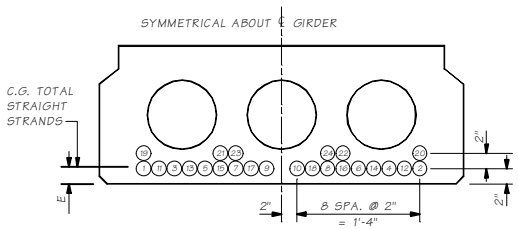
SHEET SR

Thu Jan 26 08:31:20 2012



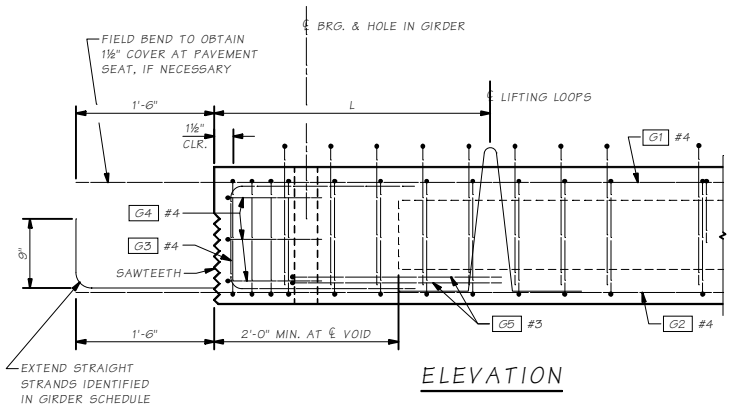
PLAN

S1 BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATION.



STRAND PATTERN

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



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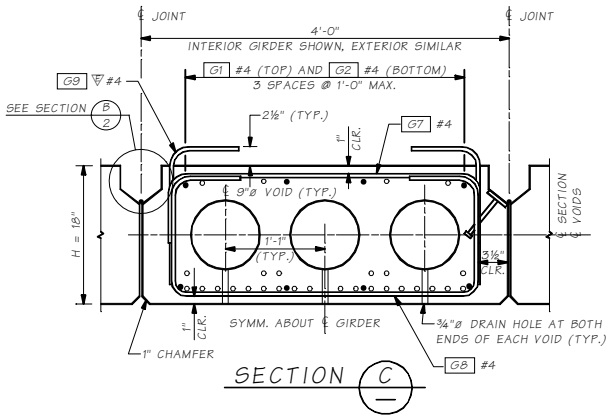
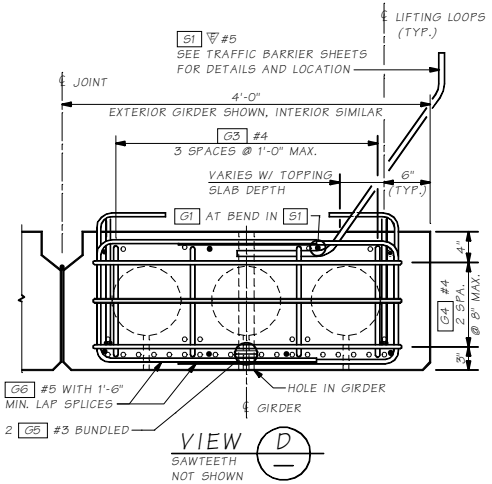


SECTION C



VIEW D

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 18 - 1 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
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Detailed By									
Bridge Projects Engr.									
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Washington State Department of Transportation

STANDARD PRESTRESSED CONCRETE GIRDERS

18" SLAB GIRDER DETAILS 1 OF 2

BRIDGE SHEET NO.

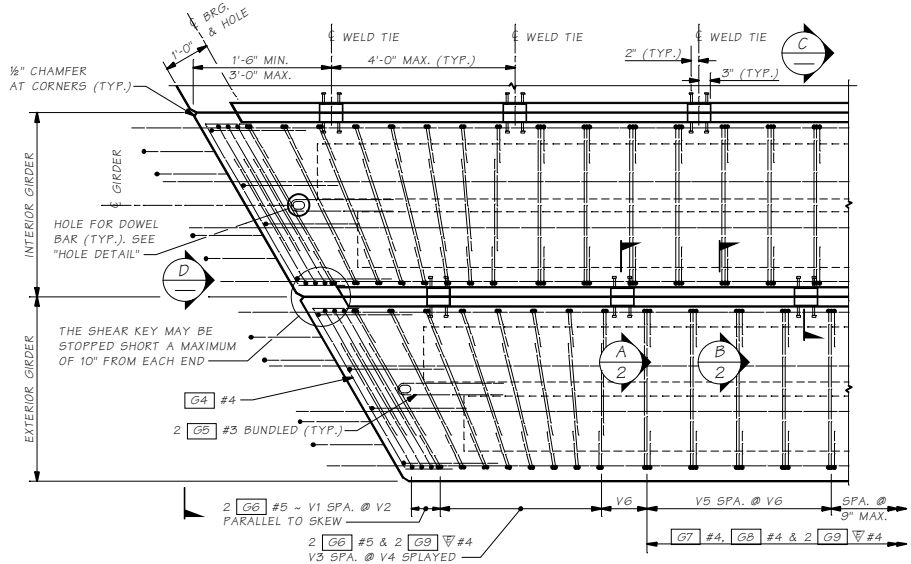
SHEET OF SHEETS

Last revised on : 7/8/2011

SR FILE NO. SHEET

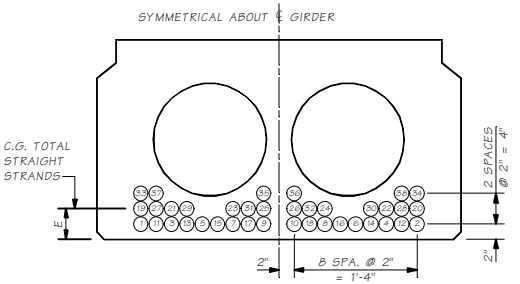
5.6-A8-3

Thu Jan 26 08:31:20 2012



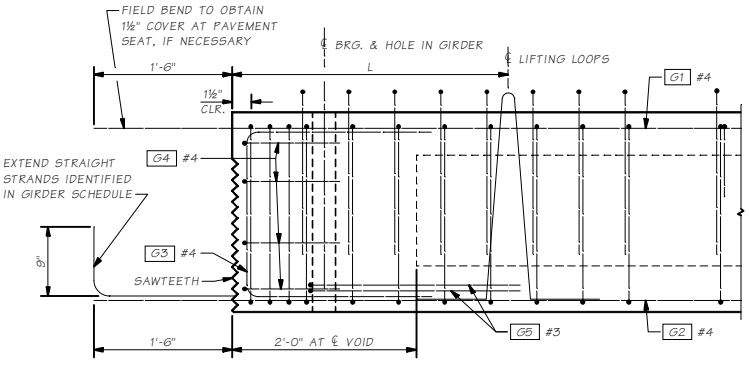
PLAN

S1 BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATION.



STRAND PATTERN

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



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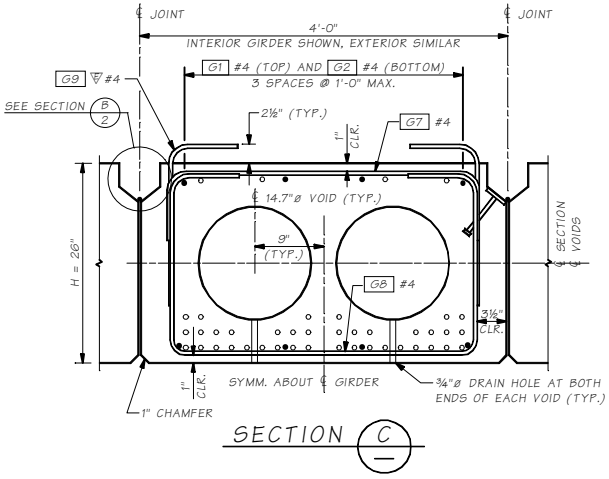
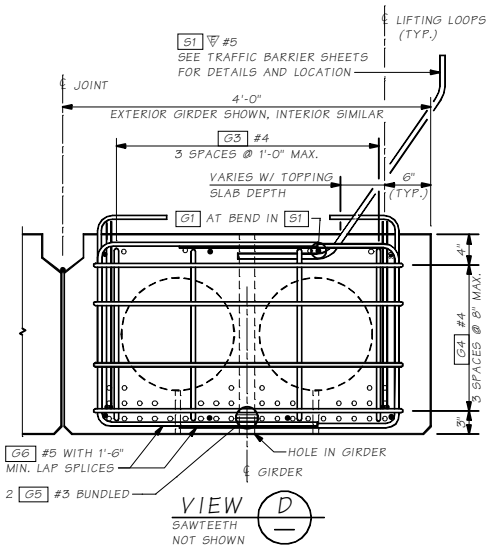


SECTION C



VIEW D

SAWTEETH NOT SHOWN

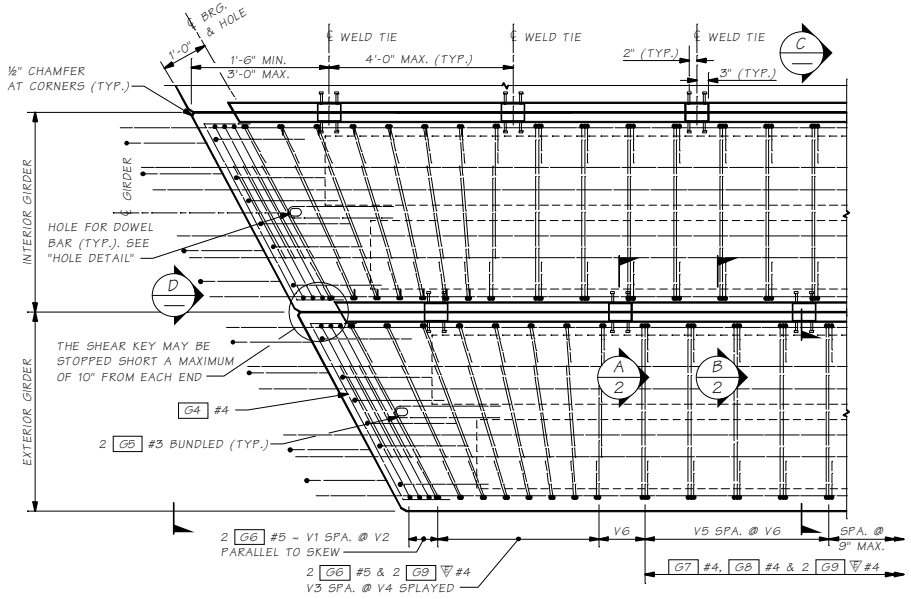
Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 26 - 1 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS	BRIDGE AND STRUCTURES OFFICE
Supervisor					10	WASH.				Washington State Department of Transportation
Designed By					JOB NUMBER					STANDARD PRESTRESSED CONCRETE GIRDERS
Checked By										26" SLAB GIRDER DETAILS 1 OF 2
Detailed By										BRIDGE SHEET NO.
Bridge Projects Engr.										SHEET OF SHEETS
Prelim. Plan By										
Architect/Specialist	DATE	REVISION	BY	APP'D						

Thu Jan 26 08:31:20 2012

Last revised on : 7/8/2011

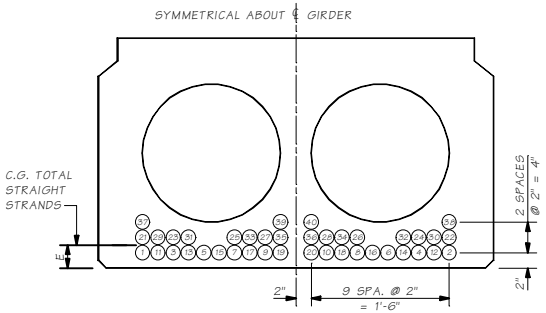
SR FILE NO. SHEET

5.6-A8-4



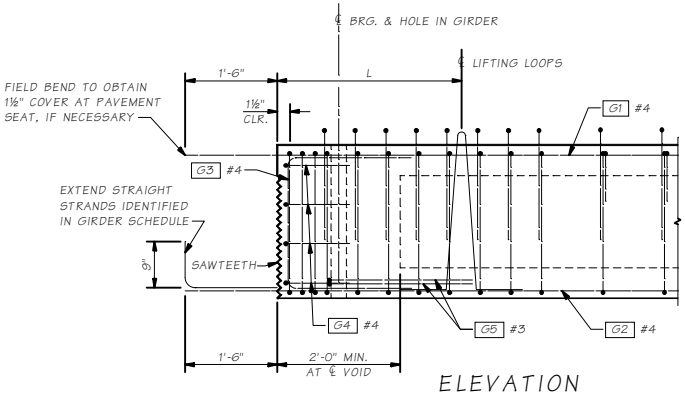
PLAN

S1 BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATION.



STRAND PATTERN

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



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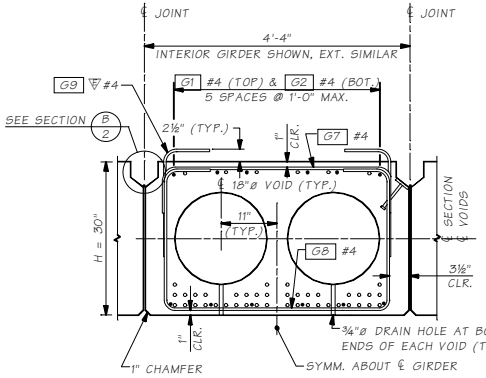
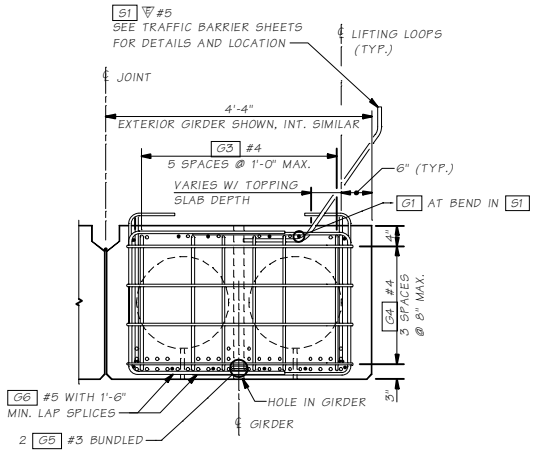


SECTION C



VIEW D

SAWTEETH NOT SHOWN

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 30 - 1 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
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Bridge Projects Engr.									
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BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD PRESTRESSED CONCRETE GIRDERS

30" SLAB GIRDER DETAILS 1 OF 2

BRIDGE SHEET NO.

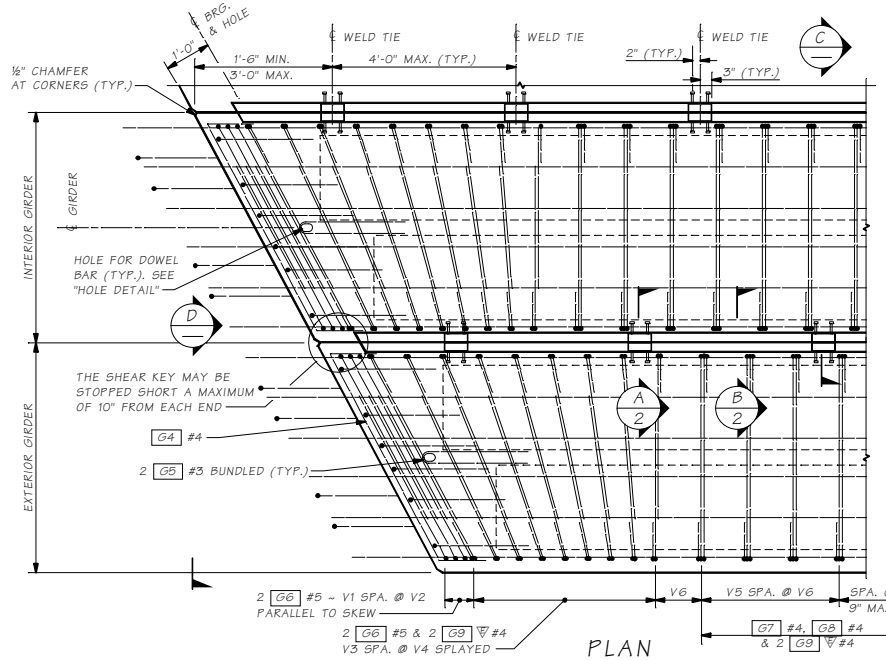
SHEET OF SHEETS

Last revised on : 7/8/2011

FILE NO. SHEET

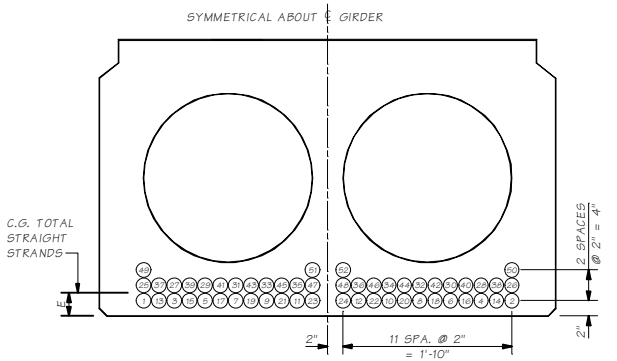
SR 5.6-A8-5

Thu Jan 26 08:31:20 2012



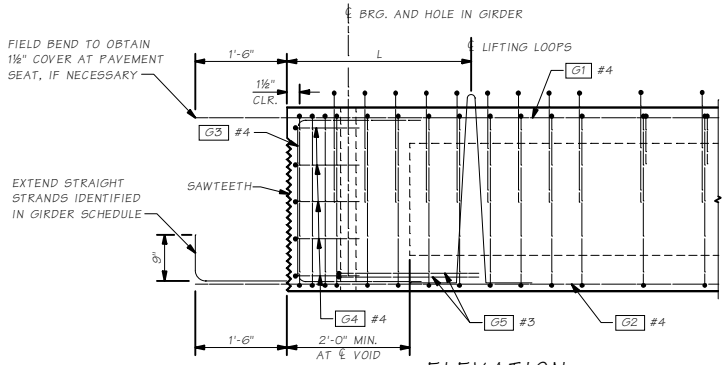
PLAN

S1 BARS NOT SHOWN FOR CLARITY. SEE TRAFFIC BARRIER SHEETS FOR DETAILS AND LOCATION.



STRAND PATTERN

STRAIGHT STRAND LOCATION SEQUENCE SHALL BE AS SHOWN (1), (2) ETC.



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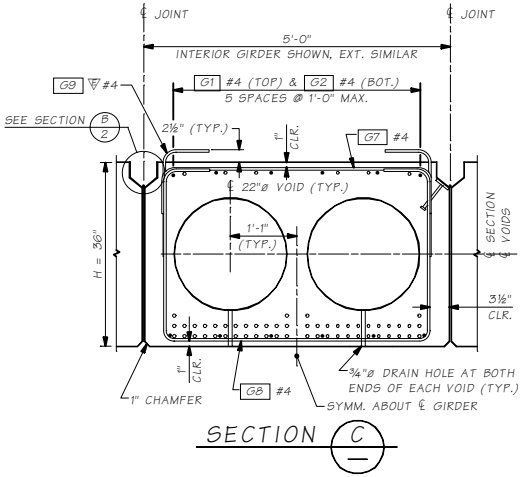
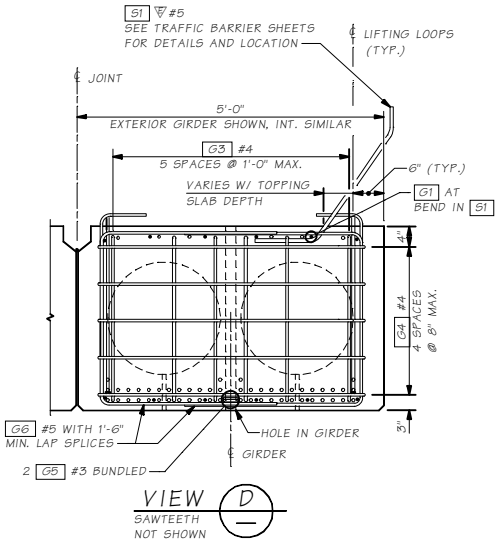


SECTION C



VIEW D

SAWTEETH NOT SHOWN

Last revised on : 7/8/2011

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 36 - 1 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
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Detailed By									
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist	DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD PRESTRESSED CONCRETE GIRDERS

36" SLAB GIRDER DETAILS 1 OF 2

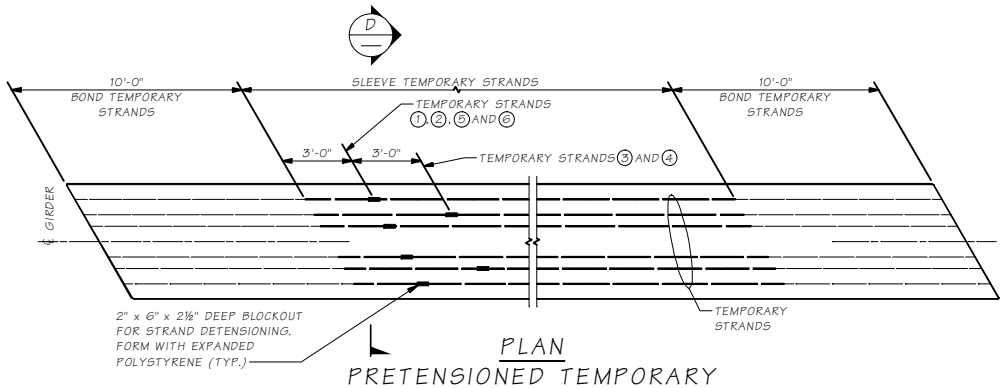
BRIDGE SHEET NO.

SHEET OF SHEETS

SR FILE NO. SHEET

5.6-A8-6

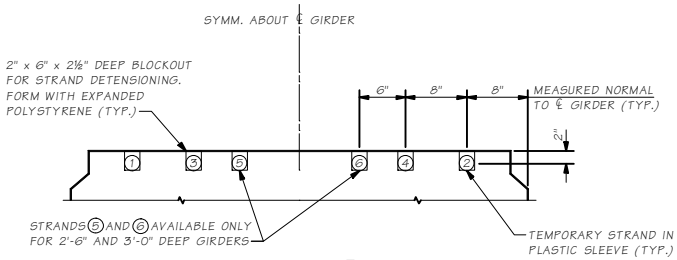
Thu Jan 26 08:31:20 2012



PLAN

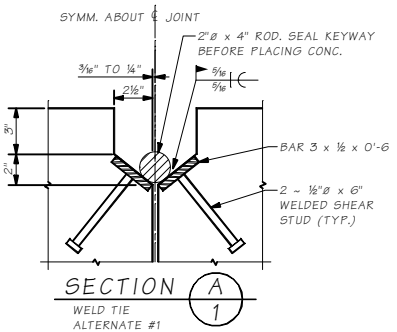
PRETENSIONED TEMPORARY TOP STRANDS

SEE "GIRDER SCHEDULE" FOR REQUIRED NUMBER OF TEMPORARY STRANDS.



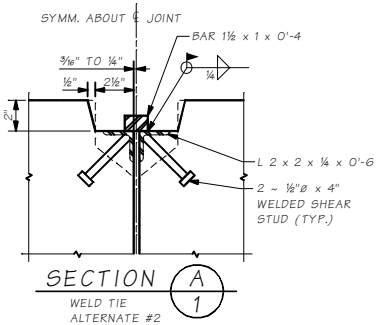
SECTION D

TEMPORARY STRAND LOCATION SEQUENCE SHALL BE AS SHOWN ①, ② ETC.



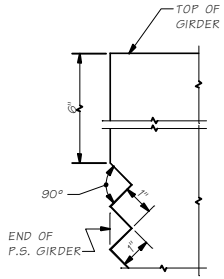
SECTION A 1

WELD TIE ALTERNATE #1



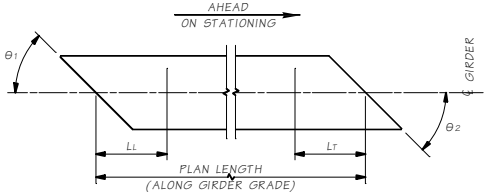
SECTION A 1

WELD TIE ALTERNATE #2



SAWTOOTH DETAILS

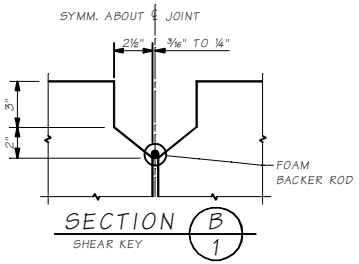
SAWTEETH ARE FULL WIDTH



END 1 END 2

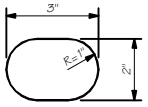
GIRDER SCHEDULE LEGEND

LL AND LT ARE SHIPPING SUPPORT LOCATIONS AT LEADING AND TRAILING ENDS, RESPECTIVELY.



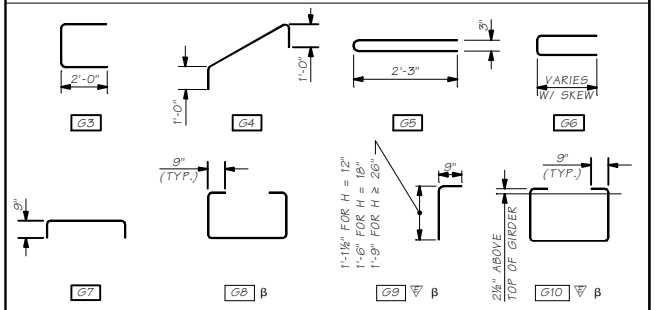
SECTION B 1

SHEAR KEY



HOLE DETAIL

BENDING DIAGRAM (ALL DIMENSIONS ARE OUT TO OUT)



β G10 BARS MAY BE SUBSTITUTED FOR G8 AND G9 BARS.

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB 2 OF 2.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Supervisor					10	WASH.			
Designed By					JOB NUMBER				
Checked By									
Detailed By									
Bridge Projects Engr.									
Prelim. Plan By									
Architect/Specialist	DATE	REVISION	BY	APP'D					

BRIDGE AND STRUCTURES OFFICE

Washington State Department of Transportation

STANDARD PRESTRESSED CONCRETE GIRDERS

SLAB GIRDER DETAILS 2 OF 2

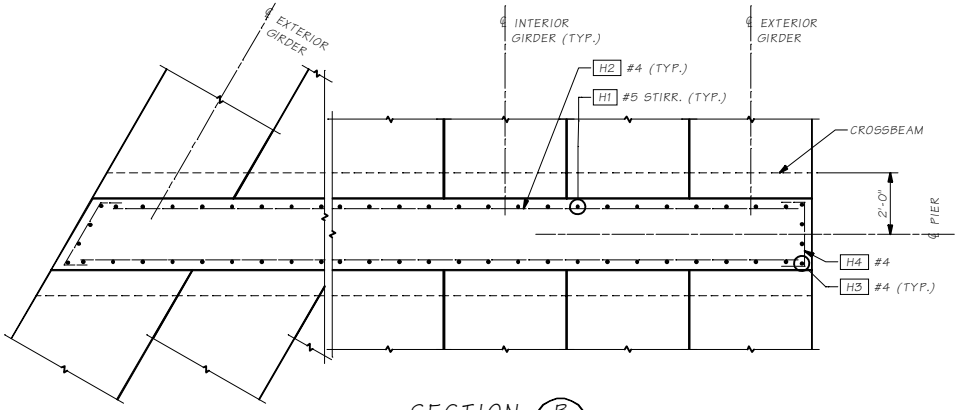
BRIDGE SHEET NO. SHEET OF SHEETS

FILE NO. SHEET

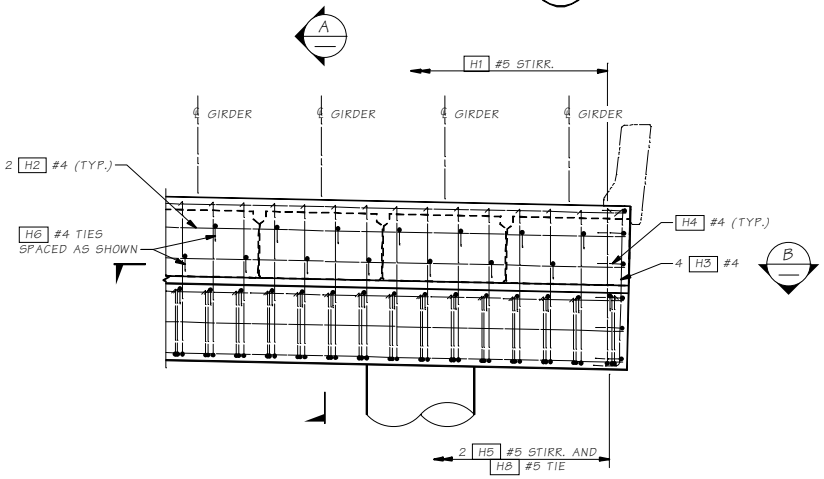
SR 5.6-A8-7

Last revised on : 7/8/2011

Thu Jan 26 08:31:21 2012



SKEWED — SECTION B — NO SKEW



ELEVATION

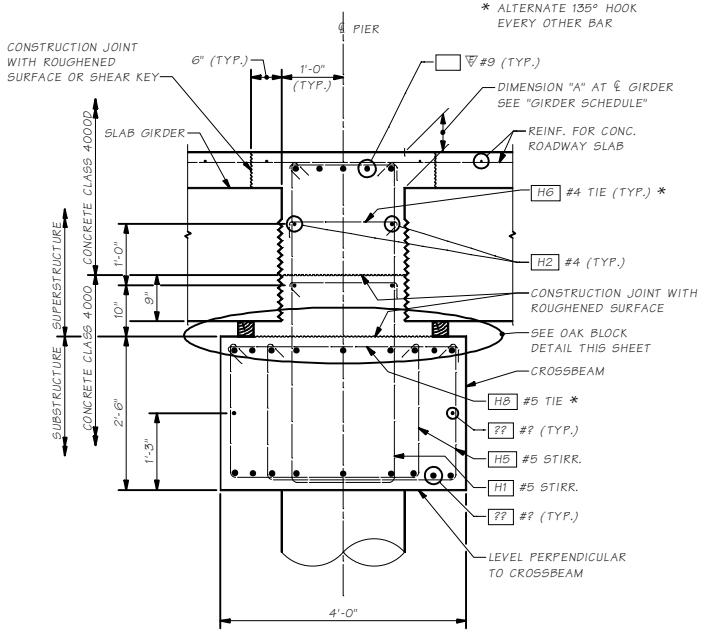
NOTE TO DETAILER:
Revise Details to show correct girder height.

ELEVATION AT TOP OF OAK BLOCK AT ℄ GIRDER

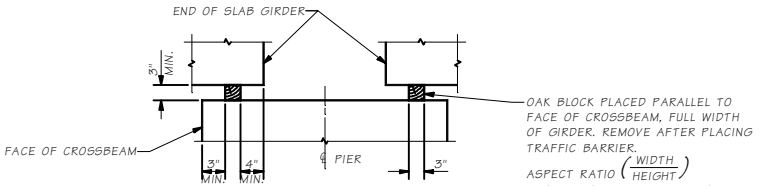
GIRDER	PIER 2	
	BACK STATION	AHEAD STATION

NOTES:

1. CUT/RELEASE GIRDER TEMPORARY STRANDS BEFORE CASTING DIAPHRAGM AND DECK SLAB. SEE TEMPORARY STRAND CUTTING SEQUENCE.
2. EXTENDED STRANDS AND GIRDER REINFORCING NOT SHOWN FOR CLARITY.
3. LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
4. FOR CONCRETE PLACEMENT PROCEDURE SEE "SUPERSTRUCTURE CONSTRUCTION SEQUENCE" SHEET.



SECTION A



OAK BLOCK DETAIL

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB GIRDER FIXED DIAPHRAGM.MAN							
Supervisor				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
Designed By				10	WASH.			
Checked By				JOB NUMBER				
Detailed By								
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STANDARD PRESTRESSED CONCRETE GIRDERS

SLAB GIRDER FIXED DIAPHRAGM

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5.6-A8-8

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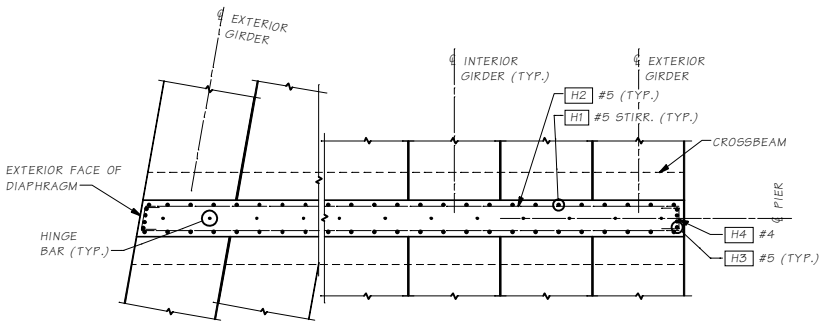


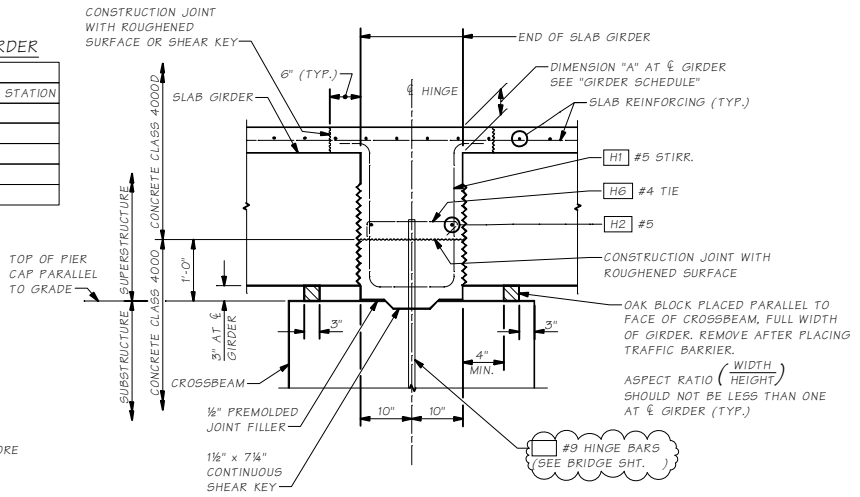
SKEWED
10° MAX. SKEW FOR HINGE DIAPHRAGM.

NO SKEW

SECTION B

ELEVATION AT TOP OF OAK BLOCK AT ℄ GIRDER

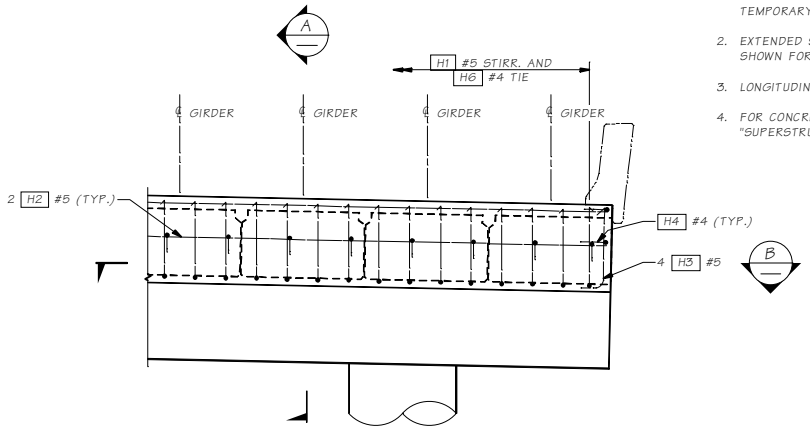
GIRDER	PIER 2	
	BACK STATION	AHEAD STATION



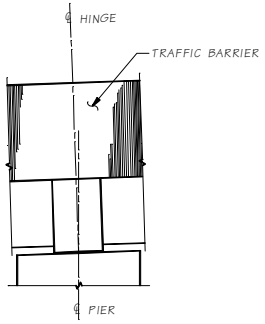
SECTION A

NOTES:

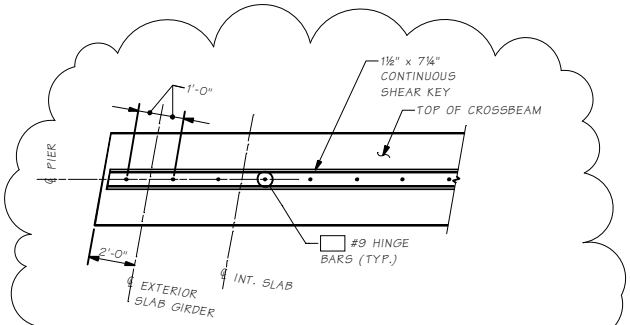
1. CUT/RELEASE GIRDER TEMPORARY STRANDS BEFORE CASTING DIAPHRAGM AND DECK SLAB. SEE TEMPORARY STRAND CUTTING SEQUENCE.
2. EXTENDED STRANDS AND GIRDER REINFORCING NOT SHOWN FOR CLARITY.
3. LONGITUDINAL DIMENSIONS ARE NORMAL TO SKEW.
4. FOR CONCRETE PLACEMENT PROCEDURE SEE "SUPERSTRUCTURE CONSTRUCTION SEQUENCE" SHEET.



ELEVATION



END VIEW
HINGE DIAPHRAGM



HINGE BAR PLAN

An example hinge bar plan is shown for designer. The actual hinge bars detail shall be shown on the crossbeam details sheet. The actual bar size and spacing shall be determined by the designer.

NOTE TO DETAILER:
Revise Details to show correct girder height.

Bridge Design Engr.	M:\STANDARDS\Girders\Flat Slab\SLAB GIRDER HINGED DIAPHRAGM.MAN				REGION NO.	STATE	FED. AID PROJ. NO.	SHEET NO.	TOTAL SHEETS
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Bridge Projects Engr.									
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Architect/Specialist	DATE	REVISION	BY	APP'D					

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STANDARD PRESTRESSED CONCRETE GIRDERS

SLAB GIRDER HINGE DIAPHRAGM

BRIDGE SHEET NO.

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FILE NO. SHEET

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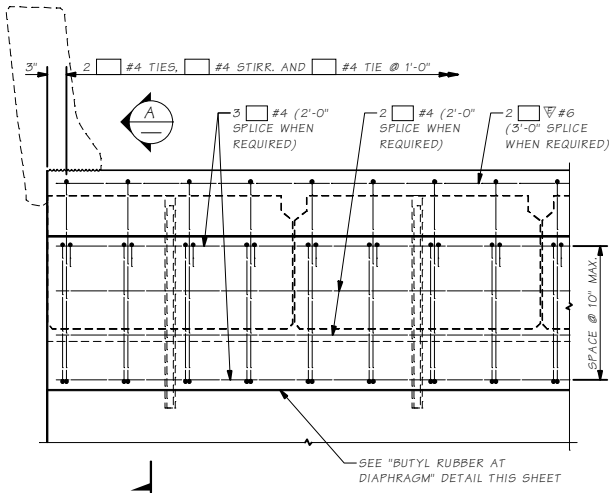
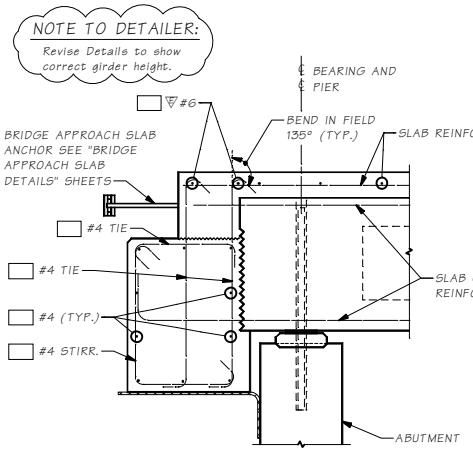
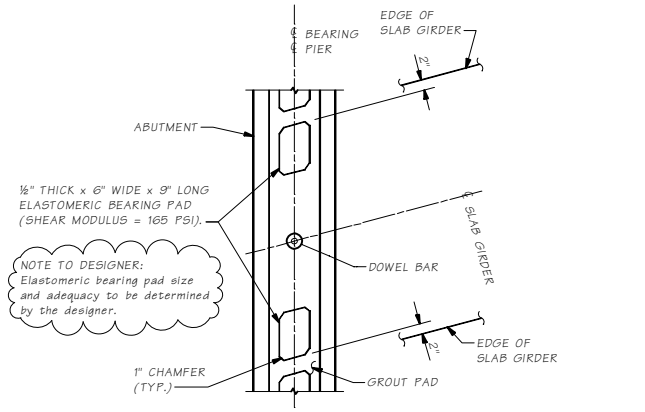


ELEVATION
END DIAPHRAGM

DIMENSIONS ARE ALONG DIAPHRAGM

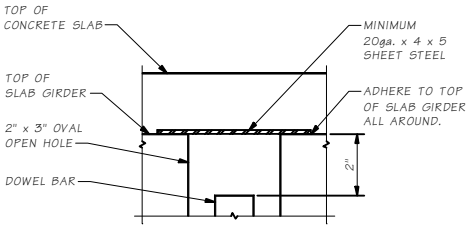


SECTION A

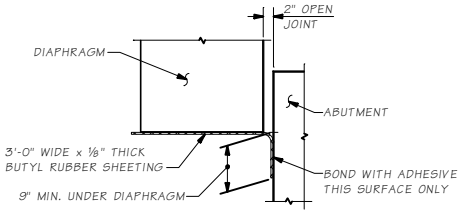


SECTION B

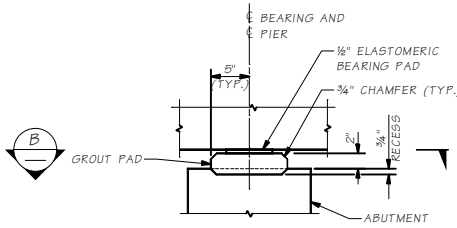
NOTE:
FULL BEARING OF SLAB UNIT IS REQUIRED AT EACH ELASTOMERIC BEARING



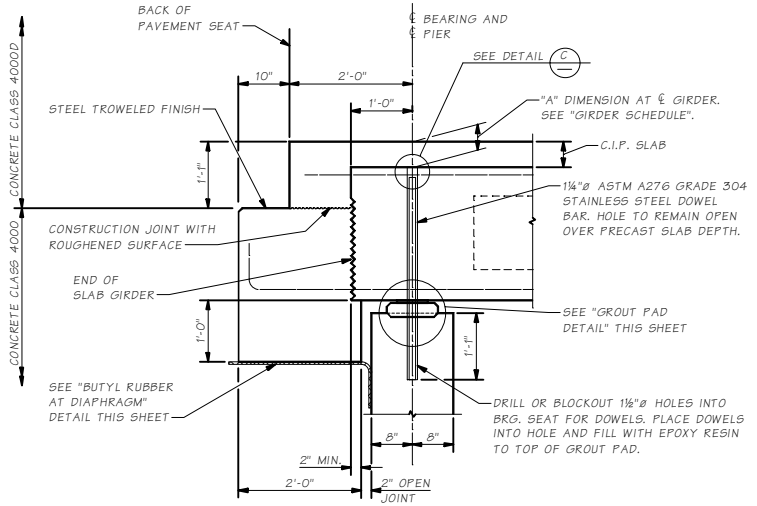
DETAIL C



ELEVATION
BUTYL RUBBER
AT DIAPHRAGM



GROUT PAD DETAIL



END DIAPHRAGM GEOMETRY

DIMENSIONS ARE NORMAL TO ℄ BEARING.

Dowel bars may be deleted if transverse stops are provided.

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STANDARD PRESTRESSED CONCRETE GIRDERS

SLAB GIRDER END PIER

BRIDGE SHEET NO. | SHEET | OF | SHEETS

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